

The background of the slide is a green chalkboard. In the lower-left quadrant, two pieces of pink chalk are lying on the surface. One piece is standing upright, and the other is lying horizontally next to it. There are several faint, white chalk markings on the board, including a large 'C' on the left, a 'V' in the center, and an arrow pointing upwards at the bottom left.

Superconducting Module & Test Facility

Meson Test Facility
A chalk talk

Paul C. Czarapata

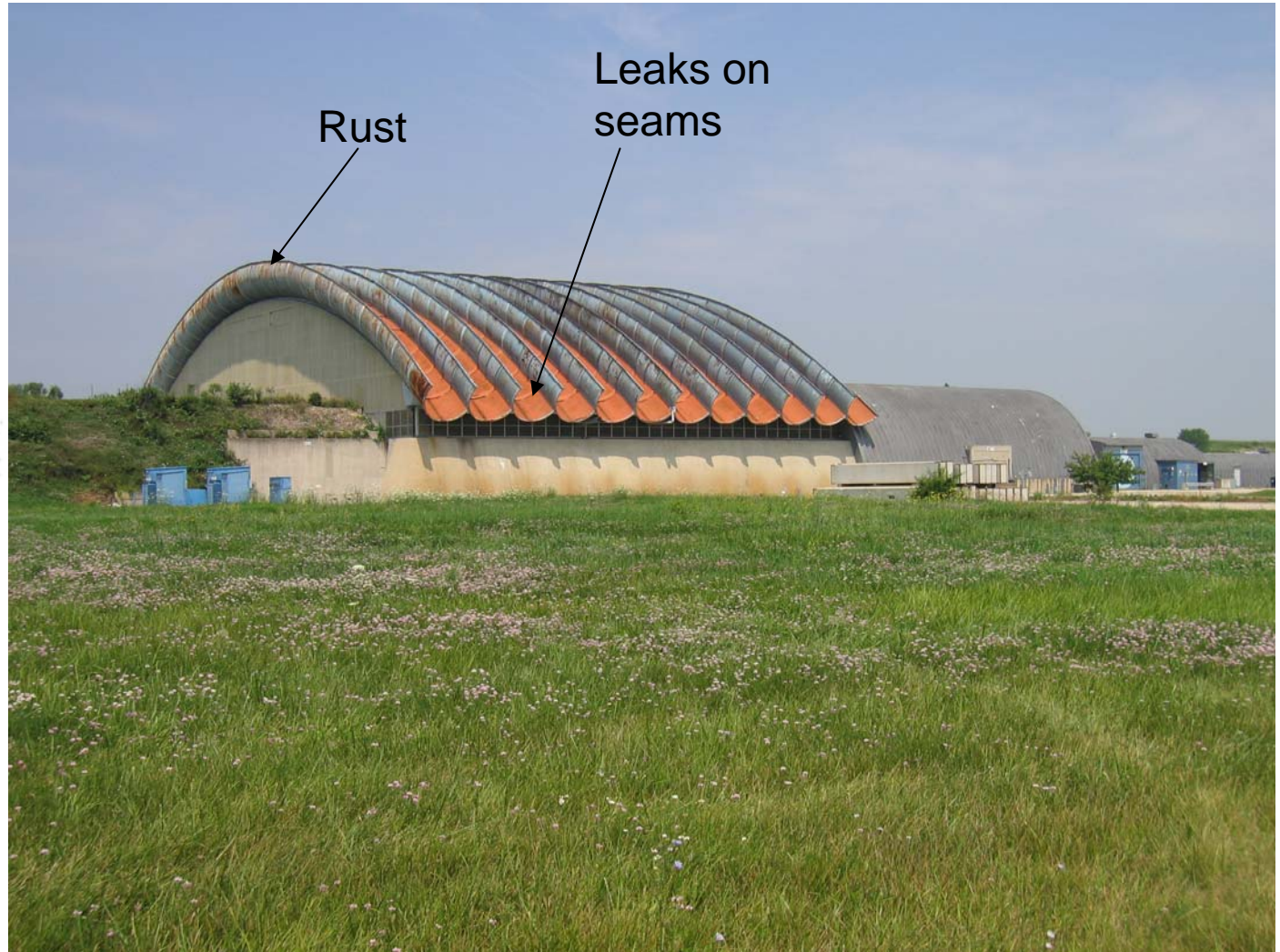
Why Meson

- Advantages
 - Available cryogenics
 - Available space, including a long beam line
 - Available power
- Disadvantages
 - We have to clean up the Meson East area (old fixed target experiment) and do some infrastructure maintenance

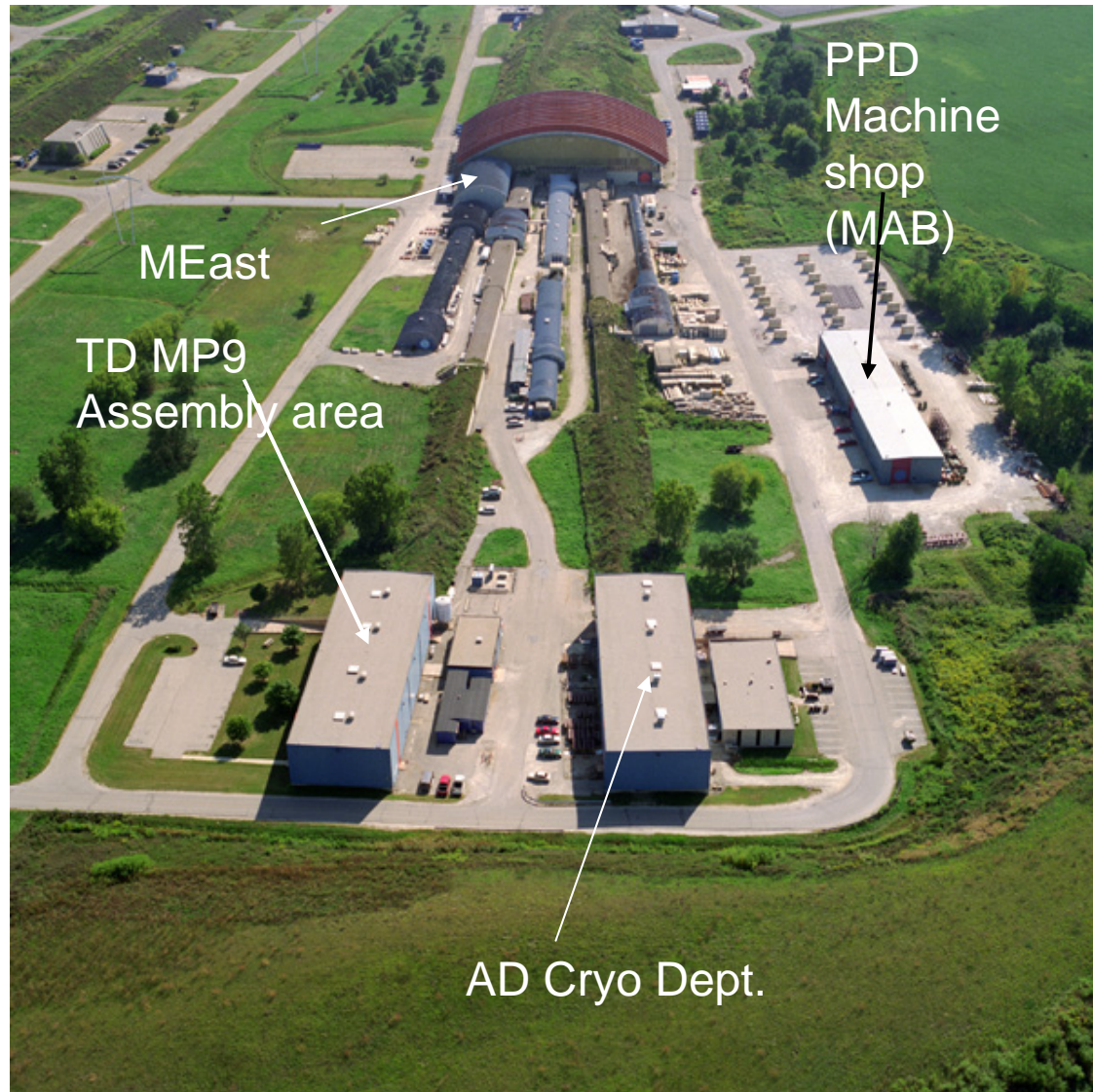
What we plan to do

- A preliminary plan
 - The goal is to be inclusive - a National facility meeting all requirements for $\beta=1$, $\beta<1$, and CW modules, and cavity testing
 - EOI submitted to the Director

The Meson Detector Bldg.



Orientation



What are we facing?



And a Bone yard



**But we have done it before
in Meson!**



Already Making Good Progress



One months worth of work so far!



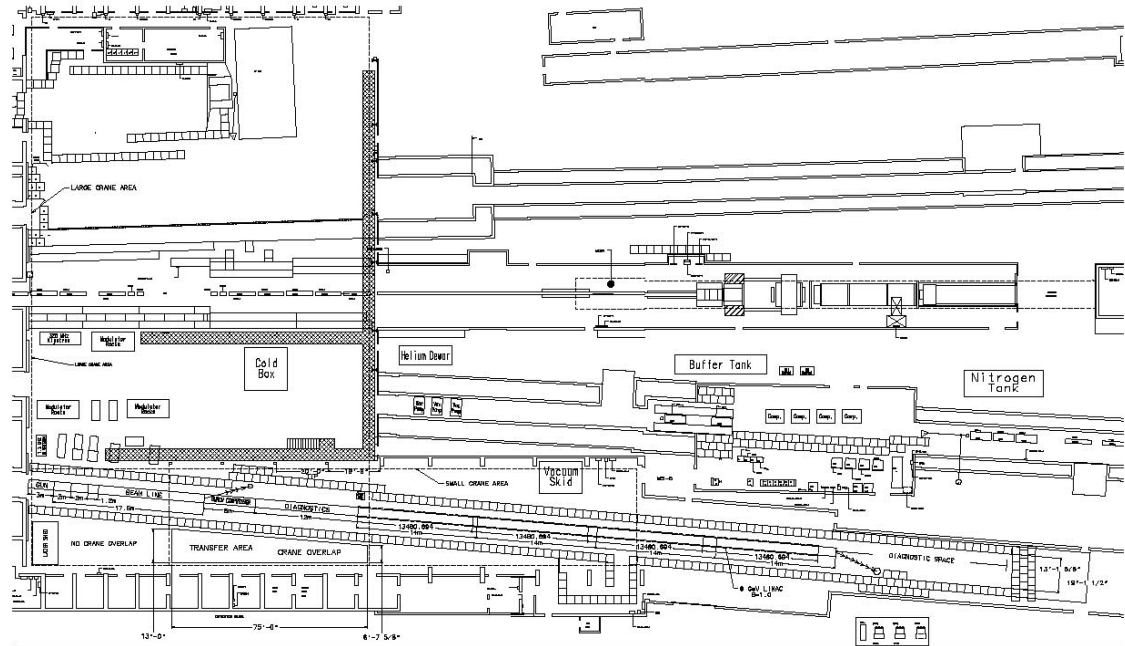
The Rewards

- **Three satellite refrigerators operating as liquefiers**
 - 4000 liters LHe inventory + equal gas storage + controls
 - Total power equivalent to ~ 90 Watts at 2 K
 - We are assuming 60 watts @ 2 K available
- **Low temperature via vacuum pumping on helium**
 - Two vacuum pumps each capable of >10 g/sec @ 20 torr (2 K)
 - Transfer lines are presently close to needed locations

Part of the cryogenic plant



A green chalkboard with two pieces of pink chalk. One piece is standing upright on the left, and the other is lying horizontally in the center. There are some faint white chalk markings on the board, including a curved line above the horizontal piece of chalk and some vertical lines below it. The background is dark and textured.



Conclusion

Plan for a 0th order test Oct/Nov of '05.

Cool down short High Gradient Module to
4.5K° (1m high gradient cavity)

Prepare for RF power testing

Then cool to 1.8K° if funding available

Lot of work to do but ready willing and
able crew from around the lab.

Forming groups from around the Nation.